

ABBREVIATED PRELIMINARY ASSESSMENT

INDEX SHOOTING RANGE

Mt. Baker-Snoqualmie National Forest

April 2011

Exhibit A Abbreviated Preliminary Assessment Checklist

Executive Summary

The Forest Service performed an Abbreviated Preliminary Assessment (APA) for the Index Shooting Range Site to determine the need for further site characterization. The site is a level area that was used for trap shooting since 1947 under permit issued to the Index Sportsmen Club from the Forest Service. The Club held various Special Use Permits through 1987 when their permit expired. The Club continued to operate the site without a valid permit until 2009. The site is now abandoned.

The Forest Service assessed the baseline conditions at the site in 2004-2006. This assessment included soil sample and installation of groundwater monitoring wells to evaluate existing conditions. The assessment indicated lead levels up to 58,100 mg/kg (7000%) higher than the Environmental Protection Agency (EPA) standard for industrial sites (800 mg/kg). It also indicated that lead had reached the groundwater. Therefore, it is recommended that further investigations of the site be conducted.

1.0 Introduction

An Abbreviated Preliminary Assessment (APA) was performed by the Forest Service in accordance with the EPA's CERCLA guidance, "Improving Site Assessment: Abbreviated Preliminary Assessments," Office of Solid Waste and Emergency Response, October 1999

The purpose of this assessment was to determine whether or not there is a potential for a release of contaminants to the environment and/or to human health. The purpose of an APA is to determine whether further site characterization is warranted.

2.0 Site Description, operational history and waste characteristics

The Index Shooting Range Site is located west of the town of Index, WA on National Forest System (NFS) land along the Old Gold Bar-Index road NE ¼ of Sect. 19, T. 27 N., R. 10 E., W.M. The site is situated on fairly level ground, there is a cleared area surrounded by trees. The north boundary is a 125 foot wide Right of Way for the Burlington Northern Sante Fe Rail Road, and the east boundary is along Washington State Parks lands. The west boundary of the area is National Forest.

The 7.5 acre site consists of a cleared area where once the Index Sportmen's Club maintained a trap-shooting range on land managed by the Forest Service within the Mt. Baker-Snoqualmie National Forest. The shooting range has been in use since 1947 and has remained in the same general configuration since that time. Shotguns and clay targets were used commonly at the site. Two Trap houses and ten shooting stations (pads) were removed from the site.

The numerous broken clay targets composed of dolomitic limestone, petroleum pitch, fluorescent aqueous paint (painted targets only) strewn about the cleared area. These targets contain substantial amounts of polycyclic aromatic hydrocarbons (PAHs) bound up in the petroleum pitch and lime matrix. Lead from the shells is the other known contaminate left on the site.

3. Site Sampling and Test Results

Soil and groundwater sampling was conducted between 2004 and 2006 to determine if activities at the range had an impact to soil and/or groundwater. While the sampling events were not conducted to determine the extent of contamination, they are used here to identify known areas of soil contamination that do need to be removed.

Soil sampling collected in 2004 detected lead concentrations in shallow soil samples and not in soils greater than 24 inches below ground surface. None of the lead concentrations in the deeper soil samples exceeded the cleanup level of 250 mg/kg in the primary area of concern for lead contamination (within the wooded area), whereas all shallow soils samples collected exceeded the MTCA Method A cleanup levels. Of the soil samples collected within the cleared area of the site, the majority had lead concentrations close to background concentrations, and none of the samples exhibited lead concentrations greater than the cleanup levels.

As stated in section 2.0 above, PAHs are known to be bound up in the clay targets. PAHs were added to the analyte list during the groundwater sampling event conducted in January and April 2006. The results of this sampling indicated that PAH concentrations in a ground water sample collected from monitoring well MW-3, located within the cleared area of the site, exceeded the state cleanup levels.

3.0 Summary and Recommendations

Based on sampling of soil and groundwater, these tests indicate lead in soils and PAHs in the ground water. The lead concentrations in soils exceed the state of Washington Model Toxics Control Act (MTCA) Method A cleanup concentrations for lead in soils (250 mg/kg). The site needs to be tested to determine the northern extent of lead contamination, quantify amount of soil that will need treatment (to meet Subtitle D landfill levels), and the amount of soil to be removed. Following removal and disposal, and confirmation sampling, a closure report will be completed.

ABBREVIATED PRELIMINARY ASSESSMENT CHECKLIST

This checklist can be used to help the site investigator determine if an Abbreviated Preliminary Assessment (APA) is warranted. This checklist should document the rationale for the decision on whether further steps in the site assessment process are required under CERCLA. Use additional sheets, if necessary.

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Site Name: Index Shooting Range

Previous Names (if any): None

Site Location: The Site is located west of the town of Index, WA on National Forest System (NFS) land along the Old Gold Bar-Index Road NE ¼ of Sect. 19, T. 27 N., R. 10 E., W.M.

Legal Description: Old Gold Bar-Index Road NE ¼ of Sect. 19, T. 27 N., R. 10 E., W.M.

Describe the release (or potential release) and its probable nature: There is known lead in soils potentially migrating into the ground water if left in the soils at the current concentration levels.

Part 1 - Superfund Eligibility Evaluation Please explain all “yes” answer(s),

If All answers are “no” go on to Part 2, otherwise proceed to Part 3	YES	NO
1. Is the site currently in CERCLIS or an “alias” of another site?		X
2. Is the site being addressed by some other remedial program (Federal, State, or Tribal)?		X
3. Are the hazardous substances potentially released at the site regulated under a statutory exclusion (i.e., petroleum, natural gas, natural gas liquids, synthetic gas usable for fuel, normal application of fertilizer, release located in a workplace, naturally occurring, or regulated by the NRC, UMTRCA, or OSHA)?		X
4. Are the hazardous substances potentially released at the site excluded by policy considerations (i.e., deferred to RCRA corrective action)?		X
5. Is there sufficient documentation to demonstrate that no potential for a release that could cause adverse environmental or human health impacts exist (i.e., comprehensive remedial investigation equivalent data showing no release above ARAR’s, completed removal action, documentation showing that no hazardous substance release have occurred, or an EPA approved risk assessment completed)?		X

Part 2 - Initial Site Evaluation

For Part 2, if information is not available to make a “yes” or “no” response, further investigation may be needed. In these cases, determine whether an APA is appropriate. Exhibit 1 parallels the questions in Part 2. Use Exhibit 1 to make decisions in Part 3.

If the answer is “no” to any questions 1, 2, or 3, proceed directly to Part 3.	YES	NO
1. Does the site have a release or a potential to release?	X	
2. Does the site have uncontained sources containing CERCLA eligible substances?	X	
3. Does the site have documented on-site, adjacent, or nearby targets?	X	

If the answers to questions 1, 2, and 3 above were all “yes” then answer the questions below before proceeding to Part 3.	YES	NO
4. Does documentation indicate that a target (i.e., drinking water wells, drinking surface water intakes, etc.) has been exposed to a hazardous substance released from the site?		X
5. Is there an apparent release at the site with no documentation of exposed targets, but there are targets on site or immediately adjacent to the site?	X	
6. Is there an apparent release and no documented on-site targets or targets immediately adjacent to the site, but there are nearby targets (i.e., targets within 1 mile)?	X	
7. Is there no indication of a hazardous substance release, and there are uncontained sources containing CERCLA hazardous substances, but there is a potential to release with targets present on site or in proximity to the site?	X	

Notes:

EXHIBIT 1

SITE ASSESSMENT DECISION GUIDELINES FOR A SITE

Exhibit 1 identifies different types of site information and provides some possible recommendations for further site assessment activities based on that information. You will use Exhibit 1 in determining the need for further action at the site, based on the answers to the questions in Part 2. Please use your professional judgment when evaluating a site. Your judgment may be different from the general recommendations for a site given below.

Suspected/Documented Site Condition		APA	Full PA	PA/SI	SI
1. There are no releases or potential to release		Yes	No	No	No
2. No uncontained sources with CERCLA-eligible substances are present on site.		Yes	No	No	No
3. There are no on-site, adjacent, or nearby targets		Yes	No	No	No
4. There is documentation indicating that a target (i.e. drinking water wells, drinking surface water intakes, etc) has been exposed to a hazardous substance released from the site	Option 1: APA SI	Yes	No	No	Yes
	Option 2: PA/SI	No	No	Yes	No
5. There is an apparent release at the site with no documentation of exposed targets, but there are targets on site or immediately adjacent to the site.	Option 1: APA SI	Yes	No	No	Yes
	Option 2: PA/SI	No	No	Yes	Yes
6. There is an apparent release and no documented on-site targets and no documented immediately adjacent to the site, but there are nearby targets. Nearby targets are those targets that are located within 1 mile of the site and have a relatively high likelihood of exposure to a hazardous substance migrating from the site.		No	Yes	Yes	Yes
7. There is no indication of a hazardous substance release, and there are uncontained sources containing CERCLA hazardous substances, but there is a potential to release with targets present on site or in proximity to the site.		No	Yes	Yes	Yes

Part 3 - EPA Site Assessment Decision

When completing Part 3, use Part 2 and Exhibit 1 to select the appropriate decision. For example, if the answer to question 1 in Part 2 was “no,” then an APA may be performed and the “NFRAP” box below should be checked. Additionally, if the answer to question 4 in Part 2 is “yes,” then you have two options (as indicated in Exhibit 1): Option 1 -- conduct an APA and check the “Lower Priority SI” or “Higher Priority SI” box below; or Option 2 -- proceed with a combined PA/SI assessment.

Check the box that applies based on the conclusions of the APA:

- | | |
|--|--|
| <input type="checkbox"/> NFRAP
<input checked="" type="checkbox"/> Higher Priority SI
<input type="checkbox"/> Lower Priority SI
<input type="checkbox"/> Defer to RCRA Subtitle C
<input type="checkbox"/> Defer to NRC | <input type="checkbox"/> Refer to Removal Program – further site assessment needed
<input type="checkbox"/> Refer to Removal Program – NFRAP
<input type="checkbox"/> Site is being addressed as part of another CERCLIS site
<input type="checkbox"/> Other: _____ |
|--|--|

Regional EPA Reviewer: N/A _____
 Print Name/Signature Date _____

PLEASE EXPLAIN THE RATIONALE FOR YOUR DECISION:

Lead in the soil could migrate into the groundwater and poses other risks to human health and the environment. The soils with high lead and PAHs require a removal action. The site is located next a known dispersed camping area. Additionally, the site is being considered for a future camp ground.

NOTES:

The Site is level, easy removal options for the soils.

